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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/009,072 | 12/06/2001 | Tomas Nilsson | 1987-A-PCT-US | 4287 |

7590 07/09/2003
Sand & Sebolt
Aegis Tower Suite 1100
4940 Munson Street NW
Canton, OH 44718

EXAMINER

BELLINGER, JASON R

| | |
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| ART UNIT | PAPER NUMBER |
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3617

DATE MAILED: 07/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/009,072

Applicant(s)

NILSSON, TOMAS

Examiner

Jason R Bellinger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

References DE 1,024,384 and DE 2,356,097, listed in the specification have not been considered by the Examiner.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the lip seal being formed from "a relatively rigid elastic material" as set forth in claims 4 and 11, and the inner edge of the lip seal having "the form of a selvage" as set forth in claim 7, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

4. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

5. The disclosure is objected to because of the following informalities: The specification is objected to due to the fact that it is difficult to read due to the small font size.

Lines 4-5 of page 3 should be deleted from the specification due to the fact that no reference to the claims should be present in the disclosure.

The term "centre" should be replaced with the term --center-- in line 11 of page 3, and line 17 of page 4.

Appropriate correction is required.

6. The specification is objected to because the lines are crowded too closely together, making reading and entry of amendments difficult. A substitute specification with lines one and one-half or double spaced on good quality paper are required. See 37 CFR 1.52(b).

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7. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Objections

8. Claims 1-2 are objected to because of the following informalities: It is believed that the phrase --distance from-- should be inserted between the terms "the" and "inner" in line 7 of claim 1, to better describe the invention.

The term "rim" in line 2 of claim 2 should be replaced with the term --bead--, to conform to features of the invention previously set forth in independent claim 1 (i.e. that the outer part of the lip seal is fastened to the tire bead, and not the tire rim).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

10. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 is indefinite due to the fact that it is unclear what is actually being claimed by the phrase "the inner part...this location" in lines 7-9 of the claim. Furthermore, the aforementioned phrase seems to be inherently incorrect due to the fact that, as shown in the drawings, the inner "part" of the lip seal cannot have a slightly smaller circumference than that of the rim, due to the fact that the inner "part" of the lip seal is mounted radially outwards ^{from} ~~form~~ the rim, and thus would always have a slightly larger circumference than that of the rim when measured ^{from} ~~form~~ the same

reference point. Therefore, it is recommended that the aforementioned phrase be removed from the claim.

Claim 1 is further indefinite due to the fact that it is unclear whether "the inner part" of the lip seal, as set forth in line 7 of the claim, is the same element of the invention as "the inner edge" of the lip seal, as set forth in line 6 of the claim, or is an entirely separate element of the invention.

Claims 3 and 10 are indefinite due to the fact that it is unclear whether or not the "underlying supporting surface" of the lip seal is a separate element of the invention.

Claim 6 is indefinite due to the fact that it is unclear whether "the inner part" of the lip seal, as set forth in line 2 of the claim, is the same element of the invention as "the inner edge" of the lip seal, as set forth in line 6 of independent claim 1, or is an entirely separate element of the invention.

11. Claim 1 recites the limitation "the inner part" in 7. There is insufficient antecedent basis for this limitation in the claim.

12. Claims 3 and 10 recite the limitation "its underlying supporting surface" in line 3 of each claim. There is insufficient antecedent basis for this limitation in the claims.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1-3, 6, 10, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Roudebush. Roudebush shows a pneumatic tire B having a tire bead 11 in sealing abutment with a rim seat located inwardly from a rim edge 2 on each side of an undivided rim. An internal lip seal 26 extends along the rim seat and inwardly from the tire bead 11. An outer part 27 of the lip seal 26 is proximate to the rim edge 2, and is fastened to the tire bead 11 a certain distance from the end of the bead 11. An inner part of the lip seal 26 is proximate to the center of the rim. The lip seal 26 is adapted to seal at least the region where the tire bead 11 abuts the rim seat, through the influence of pneumatic pressure of air inside the tire B.

The outer part 27 of the lip seal 26 is “glued” to the tire bead 11 (see column 5, lines 60-64). The lip seal 26 is formed of a material (namely soft rubber) having a softness that allows the entire underside of the seal 26 to lie along the entire extension of the seal 26. The lip seal 26 has a skirt-like configuration so that the inner “part” of lip seal 26 may rest loosely on the rim.

15. Claims 1-3, 6, 10, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Bowman (WO 98/21056). In Figures 3-4, Bowman shows a pneumatic tire 20A having a tire bead 28 in sealing abutment with a rim seat 32 located inwardly from a rim edge 54 on each side of an undivided rim 24. An internal lip seal 44 extends along the rim seat 32 and inwardly from the tire bead 28. An outer part 52 of the lip seal

44 is proximate to the rim edge 54, and is fastened to the tire bead 28 a certain distance from the end of the bead 28. An inner part of the lip seal 44 is proximate to the center of the rim 24. The lip seal 44 is adapted to seal at least the region where the tire bead 28 abuts the rim seat 32, through the influence of pneumatic pressure of air inside the tire 20A.

The outer part 52 of the lip seal 44 is "glued" to the tire bead 11 (see page 5, lines 2-4). The lip seal 44 is formed of a material (namely an elastomer, rubber falling into this category) having a softness that allows the entire underside of the seal 44 to lie along the entire extension of the seal 44. The lip seal 44 has a skirt-like configuration so that the inner "part" of lip seal 44 may rest loosely on the rim 24.

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roudebush in view of Powers. Roudebush contains all of the limitations as set forth in paragraph 14 above, but does not show the lip seal formed from a relatively rigid elastic material.

Powers teaches the use of a lip seal 11 formed of a relatively rigid elastic material, due to the fact that the edge portions (8-9) of the lip seal 11 contain reinforcing

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elements (16-17). Therefore from this teaching, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the lip seal of Roudebush with reinforcing members to create a relatively rigid elastic lip seal, for the purpose of reducing wear of the seal and providing a more resilient seal between the tire bead and the rim.

18. Claims 5, 7-9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roudebush. While Roudebush does not specify the distance from the edge of the tire bead from which the outer part of the lip seal is fastened, it would have been obvious to one of ordinary skill in the art to fasten the outer part of the lip seal a suitable distance from the edge of the tire bead in order to provide a complete seal between the tire and rim.

Roudebush further does not specify that the tire is a low profile or off-road tire. One of ordinary skill in the art at the time of the invention would have found it obvious to provide a lip seal on any type of tubeless tire that would be mounted on a rim, for the purpose of preventing a decrease in air pressure due to air leaking between the tire beads and rim.

19. Claims 5, and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowman. Bowman contains all of the limitations as set forth in paragraph 15 above, but does not specify the distance from the edge of the tire bead from which the outer part of the lip seal is fastened. It would have been obvious to one of ordinary skill

in the art at the time of the invention to fasten the outer part of the lip seal a suitable distance from the edge of the tire bead in order to provide a complete seal between the tire and rim.

Bowman further does not specify that the tire is a low profile or off-road tire. One of ordinary skill in the art at the time of the invention would have found it obvious to provide a lip seal on any type of tubeless tire that would be mounted on a rim, for the purpose of preventing a decrease in air pressure due to air leaking between the tire beads and rim.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references are considered to show wheels having a lip seal between the tire bead and the rim. For example, Cuerta shows a wheel of the type described above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason R Bellinger whose telephone number is 703-308-6298. The examiner can normally be reached on Mon - Thurs (9:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Morano can be reached on 703-308-0230. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.


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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Jason R Bellinger
Examiner
Art Unit 3617


jrb
June 26, 2003


S. JOSEPH MORANO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

Notice of References Cited

Application/Control No.

10/009,072

Applicant(s)/Patent Under
Reexamination
NILSSON, TOMAS

Examiner

Jason R Bellinger

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Page 1 of 1

U.S. PATENT DOCUMENTS

| * | | Document Number Country Code-Number-Kind Code | Date MM-YYYY | Name | Classification |
|---|---|--|-----------------|-----------------|----------------|
| | A | US-2,857,951 | 10-1958 | Roudebush | 152/514 |
| | B | US-2,731,063 | 01-1956 | Powers | 152/514 |
| | C | US-2,884,983 | 05-1959 | Cuesta | 152/514 |
| | D | US-2,530,213 | 11-1950 | Sutton | 152/514 |
| | E | US-4,563,042 | 01-1986 | Seitz et al. | 301/37.22 |
| | F | US-4,042,003 | 08-1977 | Gaskill et al. | 152/381.4 |
| | G | US-3,877,503 | 04-1975 | Tangorra et al. | 152/379.4 |
| | H | US-2,427,216 | 09-1947 | Kraft | 152/384 |
| | I | US- | | | |
| | J | US- | | | |
| | K | US- | | | |
| | L | US- | | | |
| | M | US- | | | |

FOREIGN PATENT DOCUMENTS

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NON-PATENT DOCUMENTS

| * | | Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages) |
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| | U | |
| | V | |
| | W | |
| | X | |

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.